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Tami M. Procopio

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Sarvajit Chakravarty, et al.

Serial No.:

Not yet assigned

Continuation of 09/383,825

Filing Date:

Herewith

For:

QUINAZOLINE DERIVATIVES AS

MEDICAMENTS

Examiner: Not yet assigned,

Parent assigned to Hong Liu

Group Art Unit: Not yet assigned,

Parent in 1624

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

Prior to examination, please amend the specification as follows:

Enclosed is the following Exhibit A:

Exhibit A: Marked-up Version of Amendments to the Specification and Claims.

AMENDMENT

In the Specification:

On page 1 of the specification, under the title, please insert:

--This application is a continuation of U.S. Serial No. 09/383,825 filed 27 August 1999, which is a continuation-in-part of U.S. Serial No. 09/141,916 filed 28 August 1998. The contents of these applications are incorporated herein by reference.--

On page 10, replace the current second paragraph, at lines 5-21, with the following:

Each R² is also independently a hydrocarbyl residue (1-20C) containing 0-5 heteroatoms selected from O, S and N. Preferably, R² is independently H, alkyl, alkenyl, alkynyl, acyl or hetero-forms thereof or is aryl, arylalkyl, heteroalkyl, heteroaryl, or heteroarylalkyl, each unsubstituted or substituted with 1-3 substituents selected independently from the group consisting of alkyl, alkenyl, alkynyl, aryl, alkylaryl, aroyl, N-aryl, NH-alkylaryl, NH-aroyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, NRSOR, NRSO₂R. -OCONR₂, RCO, -COOR, -SO₃R, NRSOR, NRSO₂R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C). The aryl or aroyl groups on said substituents may be further substituted by, for example, alkyl, alkenyl, alkynyl, halo, OR, NR2, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C). More preferably the substituents on R² are selected from R⁴, halo, OR⁴, NR⁴₂, SR⁴, -OOCR⁴, -NR⁴OCR⁴, -COOR⁴, R⁴CO, -CONR⁴₂, -SO₂NR⁴₂, CN, CF₃, and NO₂, wherein each R⁴ is independently H, or optionally substituted alkyl (1-6C), or optionally substituted arylalkyl (7-12C) and wherein two R⁴ or two substituents on said alkyl or arylalkyl taken together may form a fused aliphatic ring of 5-7 members.

In the Claims:

Please amend the claims as follows:

Please replace the presently pending claims with the following claims:

1. (Amended) A method to inhibit p38 α activity, which method comprises contacting said p38 α with a compound of the formula:

$$Z_{Q}^{6}$$

$$Z_{Q}^{7}$$

$$Z_{Q}^{8}$$

$$Z_{Q}$$

$$Z_{Q}^{8}$$

$$Z_{Q}^{8$$

or the pharmaceutically acceptable salts thereof

wherein R³ comprises a substituted or unsubstituted aromatic moiety, wherein said aromatic moiety is a monocyclic or fused bicyclic moiety containing 5-12 ring member atoms, optionally comprising one or more heteroatoms selected from O, S and N;

each Z is CR² or N, wherein no more than two Z positions in ring A are N, and wherein two adjacent Z positions in ring A cannot be N;

each R² is either

(i) independently selected from the group consisting of H, alkyl, alkenyl, alkynyl, acyl, wherein each of alkyl, alkenyl, alkynyl and acyl may optionally contain 1-2 O, S or N, aryl, and arylalkyl, each of said aryl and arylalkyl optionally containing 1 or more O, S or N and wherein in each of the foregoing other than H may be unsubstituted or substituted with 1-3 substituents selected independently from the group consisting of alkyl, alkenyl, alkynyl, aryl, alkylaryl, aroyl, N-aryl, NH-alkylaryl, NH-aroyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C), and wherein any aryl or aroyl groups on said substituents may be further substituted by alkyl, alkenyl, alkynyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C), or

(ii) independently selected from the group consisting of halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, NRSOR, NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, NRSOR, NRSO₂R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C);

wherein L is a divalent moiety that provides a distance of 2-8Å between ring B and Ar'; n is 0 or 1; and

Ar' is a cyclic aliphatic, cyclic heteroaliphatic or a monocyclic or polycyclic aromatic moiety any of the foregoing optionally substituted with 1-3 substituents, wherein two of said substituents may form a 5-7 member cyclic optionally heterocyclic aliphatic ring and wherein Ar' and any said substituents thereon forming a cyclic aliphatic ring, may optionally contain one or more ring atoms selected from O, S and N.

Please cancel claims 2-7.

- 8. (Amended) The method of claim 1 wherein any substituents on the aromatic or heteroaromatic moiety of R³ are independently selected from the group consisting of halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C) and alkyl (1-6C).
- 9. The method of claim 1 wherein said substituents on substituted Ar' are independently selected from the group consisting of optionally substituted alkyl, alkenyl, alkynyl, aryl, alkylaryl, NH-aryl, NH-aroyl, NH-aroyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C),

and wherein any aryl or aroyl groups on said substituents may be further substituted by alkyl, alkenyl, alkynyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C).

10. (Amended) The method of claim 9 wherein Ar' is phenyl, 2-, 3-, or 4-pyridyl, 2- or 4-pyrimidyl, indolyl, isoquinolyl, quinolyl, benzimidazolyl, benzotriazolyl, benzothiazolyl, benzofuranyl, pyridyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, or imidazolyl, all of which may optionally be substituted.

Please cancel claims 11 and 12.

13. (Amended) The method of claim 1 wherein said optional substituents on R² are independently selected from the group consisting of R⁴, halo, OR⁴, NR⁴₂, SR⁴, -OOCR⁴, -NROCR⁴, -COOR⁴, R⁴CO, -CONR⁴₂, -SO₂NR⁴₂, CN, CF₃, and NO₂, wherein each R⁴ is independently H, or optionally substituted alkyl (1-6C), or optionally substituted arylalkyl (7-12C) and wherein two R⁴ or two substituents on said alkyl or arylalkyl taken together may form a fused aliphatic ring of 5-7 members.

Please cancel claim 14.

15. (Amended) The method of claim 1 wherein L is $S(CR^2_2)_m$, $-NR^1SO_2(CR^2_2)_l$, $SO_2(CR^2_2)_m$, $SO_2NR^1(CR^2_2)_l$, $NR^1(CR^2_2)_m$, $NR^1CO(CR^2_2)_l$, $O(CR^2_2)_m$, or $OCO(CR^2_2)_l$, or

$$-N$$
 $(CR_2^2)_i$ Z $(CR_2^2)_i$

wherein Z is N or CH and wherein m is 0-4 and 1 is 0-3;

R¹ is H, alkyl or arylalkyl where the aryl moiety may be substituted by 1-3 substituents selected independently from the group consisting of alkyl, alkenyl, alkynyl, aryl, alkylaryl, aroyl, N-aryl, NH-alkylaryl, NH-aroyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C);

and wherein any aryl or aroyl groups on said substituents may be further substituted by alkyl, alkenyl, alkynyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂,

-NRCOOR, -NRSOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C); and R² is as defined in claim 1.

- 16. (Amended) The method of claim 1 wherein the compound of formula (1) is selected from group consisting of
- (a) the compounds listed in Table 2 below, wherein Z^5 - Z^8 are CH; Z^3 is N; R^1 in compound No. 11 is 2-propyl; R^1 in compound No. 12 is 4-methoxyphenyl, and R^1 in compound No. 41 is 4-methoxybenzyl; and wherein L, Ar' and R^3 are as shown in Table 2:

Table 2				
Compound No.	L	Ar'	R ³	
1	NH	4-pyridyl	2-chlorophenyl	
2	NH	4-pyridyl	2,6-dichlorophenyl	
3	NH	4-pyridyl	2-methylphenyl	
4	NH	4-pyridyl	2-bromophenyl	
5	NH	4-pyridyl	2-fluorophenyl	
6	NH	4-pyridyl	2,6-difluorophenyl	
7	NH	4-pyridyl	phenyl	
8	NH	4-pyridyl	4-fluorophenyl	
9	NH	4-pyridyl	4-methoxyphenyl	
10	NH	4-pyridyl	3-fluorophenyl	
11	NR ¹	4-pyridyl	phenyl	
12	NR ¹	4-pyridyl	phenyl	
13	NHCH ₂	4-pyridyl	phenyl	
14	NHCH ₂	4-pyridyl	4-chlorophenyl	
15	NH	3-pyridyl	phenyl	
16	NHCH ₂	2-pyridyl	phenyl	
17	NHCH ₂	3-pyridyl	phenyl	
18	NHCH ₂	2-pyridyl	phenyl	
19	NHCH ₂ CH ₂	2-pyridyl	phenyl	
20	NH	6-pyrimidinyl	phenyl	
21	NH	2-pyrimidinyl	phenyl	
22	NH	Phenyl	phenyl	
23	NHCH ₂	Phenyl	3-chlorophenyl	
24	NH	3-hydroxyphenyl	phenyl	
25	NH	2-hydroxyphenyl	phenyl	

Table 2			
Compound No.	L	År'	R ³
26	NH	4-hydroxyphenyl	phenyl
27	NH	4-indolyl	phenyl
28	NH	5-indolyl	phenyl
29	NH	4-methoxyphenyl	phenyl
30	NH	3-methoxyphenyl	phenyl
31	NH	2-methoxyphenyl	phenyl
32	NH	4-(2-hydroxyethyl)phenyl	phenyl
33	NH	3-cyanophenyl	phenyl
34	NHCH ₂	2,5-difluorophenyl	phenyl
35	NH	4-(2-butyl)phenyl	phenyl
36	NHCH ₂	4-dimethylaminophenyl	phenyl
38	NH	2-pyridyl	phenyl
39	NHCH ₂	3-pyridyl	phenyl
40	NH	4-pyrimidyl	phenyl
41	NR ¹	4-pyridyl	phenyl
42	NH	p-aminomethylphenyl	phenyl
43	NHCH ₂	4-aminophenyl	phenyl
44	NH	4-pyridyl	3-chlorophenyl
45	NH	Phenyl	4-pyridyl
46	NH	NNH	phenyl
48	NH	2-benzylamino-3-pyridyl	phenyl
49	NH	2-benzylamino-4-pyridyl	phenyl
50	NH	3-benzyloxyphenyl	phenyl
51	NH	4-pyridyl	3-aminophenyl
52	NH	4-pyridyl	4-pyridyl
53	NH	4-pyridyl	2-naphthyl
54		4-pyridyl	phenyl
55	N—CH ₂ —	Phenyl	phenyl
56		2-pyridyl	phenyl
61	NH	4-pyridyl 2-trifluoromethyl phenyl	
62	NH	4-aminophenyl phenyl	
64	NH	3-methoxyphenyl 2-fluorophenyl	
65	NH	4-methoxyphenyl	2-fluorophenyl

	Table 2			
Compound No.	L	Ar'	\mathbb{R}^3	
66	NH	4-pyrimidinyl	2-fluorophenyl	
67	NH	3-amino-4-pyridyl	phenyl	
68	NH	4-pyridyl	2-benzylaminophenyl	
69	NH	2-benzylaminophenyl	phenyl	
70	NH	2-benzylaminophenyl	4-cyanophenyl	
71	NH	3'-cyano-2- benzylaminophenyl	phenyl	

(b) the compounds listed in Table 3, below, wherein L is NH; Z^3 is N; Z^6 and Z^7 are CH and Z^5 , Z^8 , Ar' and Z^8 are as shown in Table 3:

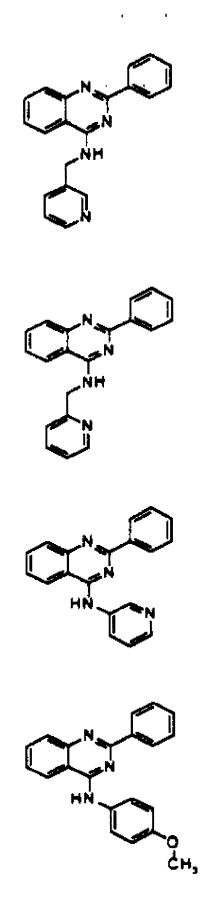
Table 3				
Compound No.	\mathbf{Z}^{5}	\mathbb{Z}^8	Ar'	\mathbb{R}^3
72	CH	N	4-pyridyl	2-fluorophenyl
73	CH	N	4-pyridyl	2-chlorophenyl
74	CH	N	4-pyridyl	phenyl
75	N	N	4-pyridyl	phenyl
76	N	СН	4-pyridyl	phenyl

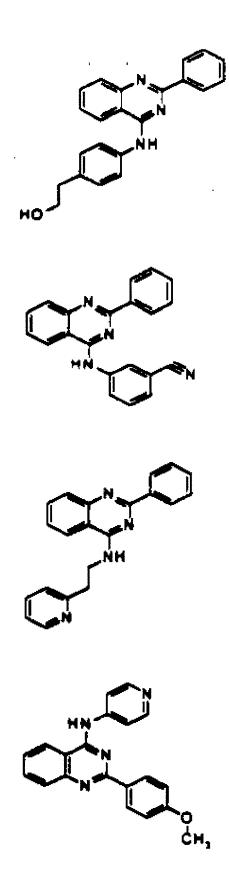
and

(c) the quinazoline derivatives listed in Table 4 below, wherein L is NH; Ar' is 4-pyridyl; Z^3 , Z^5 , and Z^8 are N; Z^6 or Z^7 are CR^2 as shown and each is otherwise N and wherein R^3 and R^2 are as shown in Table 4:

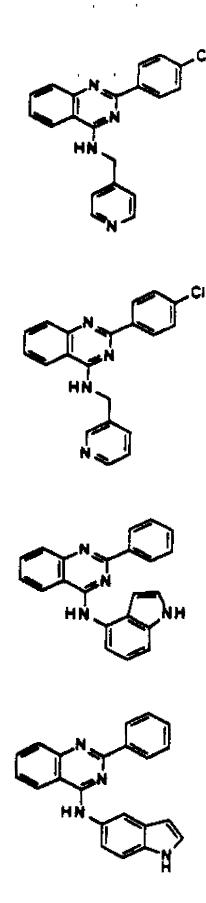
Table 4			
Compound No. R ³		ho	
77	2-chlorophenyl	6,7-dimethoxy	
78	2-fluorophenyl	6-nitro	
79	2-fluorophenyl	6-amino	
80	2-fluorophenyl	yl 7-amino	
81	2-fluorophenyl	ophenyl 6-(3-methoxybenzylamino)	
82	2-fluorophenyl	6-(4-methoxybenzylamino)	
83	2-fluorophenyl	6-(2-isobutylamino)	
84	2-fluorophenyl	6-(4-methylmercaptobenzylamino)	
85	2-fluorophenyl	6-(4-methoxybenzoyl amino)	
86	4-fluorophenyl	7-amino	
87	4-fluorophenyl	7-(3-methoxybenzylamino)	

17. (Amended) The method of claim 1 wherein the compound of formula (1) is selected from the group consisting of the following compounds:





HO ΗŅ HŅ, NH_2



18. (Amended) A pharmaceutical composition for treating conditions characterized by enhanced p38α kinase activity which composition comprises

an amount of a compound of the formula

$$Z_{1}^{6}$$

$$Z_{2}^{7}$$

$$Z_{3}^{8}$$

$$Z_{1}^{8}$$

$$Z_{1}^{8}$$

$$Z_{1}^{8}$$

$$Z_{1}^{8}$$

$$Z_{1}^{8}$$

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$$Z_{2}^{8}$$

$$Z_{3}$$

$$Z_{1}^{8}$$

$$Z_{1}^{8}$$

$$Z_{2}^{8}$$

$$Z_{1}^{8}$$

$$Z_{2}^{8}$$

$$Z_{1}^{8}$$

$$Z_{2}^{8}$$

$$Z_{3}$$

$$Z_{4}^{8}$$

or the pharmaceutically acceptable salts thereof

wherein R³;

each Z;

each R²;

L;

n; and

Ar' are as defined in claim 1 which is effective to inhibit p38 α kinase activity in admixture with at least one pharmaceutically acceptable excipient appropriate for administering to a subject exhibiting enhanced p38 α kinase activity.

- 19. The composition of claim 18 which further contains an additional therapeutic agent.
- 20. The composition of claim 19 wherein said additional therapeutic agent is a corticosteroid, a monoclonal antibody, or an inhibitor of cell division.

Please cancel claims 21-22.

Please add the following claims:

23. (New) The method of claim 1 wherein

L is $-R^1N(CH_2)_n$ - wherein R^1 is H or is alkyl (1-6C) or arylalkyl optionally substituted on the aryl group with 1-3 substituents independently selected from alkyl (1-6C), halo, OR, NR_2 ,

SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, -SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C) and n is 0, 1 or 2; and

(a) Ar' is phenyl, substituted with at least one group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C), or pyridyl, indolyl, or pyrimidyl, each optionally substituted with at least one group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); and

R³ is phenyl optionally substituted with 1-3 substituents which substituents are selected from the group consisting of alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, -SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); or

(b) Ar' is phenyl, pyridyl, indolyl, or pyrimidyl, each optionally substituted with a group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); and

R³ is phenyl substituted with 1-3 substituents which substituents are selected from the group consisting of alkyl (1-6C), halo, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, -SO₂NR₂, CN, and CF₃, wherein each R is independently H or lower alkyl (1-4C); or

(c) Ar' is phenyl substituted with a group selected from the group consisting of optionally substituted NR₂, SR, -NROCR, RCO, -CONR₂, SO₂NR₂, CN, and CF₃, wherein each R is independently H or lower alkyl (1-4C); or pyridyl substituted with a group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); or indolyl or pyrimidyl, each optionally substituted with a group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); and

R³ is phenyl optionally substituted with 1-3 substituents which substituents are selected from the group consisting of alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR,

- -CONR₂, -SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); or
- (d) Ar' is phenyl, pyridyl, indolyl, or pyrimidyl, each optionally substituted with a group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); and

R³ is phenyl substituted with 1-3 substituents which substituents are selected from the group consisting of alkyl (1-6C), halo, OR, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, -SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C).

- 24. (New) The method of claim 1 wherein the compound of formula 1 is selected from the group consisting of
 - 2-phenyl-4-(4-pyridylamino)-quinazoline;
 - 2-(2-bromophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2-chlorophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2-methylphenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(4-fluorophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(3-methoxyanilyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2,6-dichlorophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2,6-dibromophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2,6-difluorophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-6, 7-dimethoxyquinazoline;
 - 2-(4-fluorophenyl)-4-(4-pyridylamino)-6, 7-dimethoxyquinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-6-nitroquinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino -6-aminoquinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-7-aminoquinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-6-(3-methoxybenzylamino)-quinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-6-(4-methoxybenzylamino)-quinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-6-(2-isobutylamino)-quinazoline; and
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-6-(4-methylmercaptobenzylamino)-quinazoline.

- 25. (New) The composition of claim 18 wherein any substituents on the aromatic or heteroaromatic moiety of R³ are independently selected from the group consisting of alkyl (1-6C), halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C).
- 26. (New) The composition of claim 18 wherein said substituents on substituted Ar' are independently selected from the group consisting of optionally substituted alkyl, alkenyl, alkynyl, aryl, alkylaryl, aroyl, N-aryl, NH-alkylaryl, NH-aroyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C),

and wherein any aryl or aroyl groups on said substituents may be further substituted by alkyl, alkenyl, alkynyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C).

- 27. (New) The composition of claim 26 wherein Ar' is phenyl, 2-, 3-, or 4-pyridyl, 2- or 4-pyrimidyl, indolyl, isoquinolyl, quinolyl, benzimidazolyl, benzotriazolyl, benzotriazolyl, benzotriazolyl, benzotriazolyl, benzotriazolyl, pyridyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, or imidazolyl, all of which may optionally be substituted.
- 28. (New) The composition of claim 18 wherein said optional substituents on R² are independently selected from the group consisting of R⁴, halo, OR⁴, NR⁴₂, SR⁴, -OOCR⁴, -NROCR⁴, -COOR⁴, R⁴CO, -CONR⁴₂, -SO₂NR⁴₂, CN, CF₃, and NO₂, wherein each R⁴ is independently H, or optionally substituted alkyl (1-6C), or optionally substituted arylalkyl (7-12C) and wherein two R⁴ or two substituents on said alkyl or arylalkyl taken together may form a fused aliphatic ring of 5-7 members.

29. (New) The composition of claim 18 wherein L is $S(CR_2^2)_m$, $-NR_1SO_2(CR_2^2)_l$, $SO_2(CR_2^2)_m$, $SO_2NR_1(CR_2^2)_l$, $NR_1(CR_2^2)_m$, $NR_1CO(CR_2^2)_l$, $O(CR_2^2)_m$, or $OCO(CR_2^2)_l$, or

$$-N$$
 $(CR_2^2)_1$ Z $(CR_2^2)_1$

wherein Z is N or CH and wherein m is 0-4 and 1 is 0-3;

R¹ is H, alkyl or arylalkyl where the aryl moiety may be substituted by 1-3 substituents selected independently from the group consisting of alkyl, alkenyl, alkynyl, aryl, alkylaryl, aroyl, N-aryl, NH-alkylaryl, NH-aroyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C);

and wherein any aryl or aroyl groups on said substituents may be further substituted by alkyl, alkenyl, alkynyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C); and

R² is as defined in claim 18.

- 30. (New) The composition of claim 18 wherein the compound of formula (1) is selected from the group consisting of
- (a) the compounds listed in Table 2 below, wherein Z^5 - Z^8 are CH; Z^3 is N; R^1 in compound No. 11 is 2-propyl; R^1 in compound No. 12 is 4-methoxyphenyl, and R^1 in compound No. 41 is 4-methoxybenzyl; and wherein L, Ar' and R^3 are as shown in Table 2:

Table 2				
Compound No.	L	Ar'	\mathbb{R}^3	
1	NH	4-pyridyl	2-chlorophenyl	
2	NH	4-pyridyl	2,6-dichlorophenyl	
3	NH	4-pyridyl	2-methylphenyl	
4	NH	4-pyridyl	2-bromophenyl	
5	NH	4-pyridyl	2-fluorophenyl	
6	NH	4-pyridyl	2,6-difluorophenyl	

Table 2			
Compound No.	L	Ar'	\mathbb{R}^3
7	NH	4-pyridyl	phenyl
8	NH	4-pyridyl	4-fluorophenyl
9	NH	4-pyridyl	4-methoxyphenyl
10	NH	4-pyridyl	3-fluorophenyl
11	NR ¹	4-pyridyl	phenyl
12	NR ¹	4-pyridyl	phenyl
13	NHCH ₂	4-pyridyl	phenyl
14	NHCH ₂	4-pyridyl	4-chlorophenyl
15	NH	3-pyridyl	phenyl
16	NHCH ₂	2-pyridyl	phenyl
17	NHCH ₂	3-pyridyl	phenyl
18	NHCH ₂	2-pyridyl	phenyl
19	NHCH ₂ CH ₂		phenyl
20	NH	6-pyrimidinyl	phenyl
21	NH	2-pyrimidinyl	phenyl
22	NH	Phenyl	phenyl
23	NHCH ₂	Phenyl	3-chlorophenyl
24	NH	3-hydroxyphenyl	phenyl
25	NH	2-hydroxyphenyl	phenyl
26	NH	4-hydroxyphenyl	phenyl
27	NH	4-indolyl	phenyl
28	NH	5-indolyl	phenyl
29	NH	4-methoxyphenyl	phenyl
30	NH	3-methoxyphenyl	phenyl
31	NH	2-methoxyphenyl	phenyl
32	NH	4-(2-hydroxyethyl)phenyl	phenyl
33	NH	3-cyanophenyl	phenyl
34	NHCH ₂	2,5-difluorophenyl	phenyl
35	NH	4-(2-butyl)phenyl	phenyl
36	NHCH ₂	4-dimethylaminophenyl	phenyl
38	NH	2-pyridyl	phenyl
39	NHCH ₂	3-pyridyl	phenyl
40	NH	4-pyrimidyl	phenyl
41	NR ¹	4-pyridyl	phenyl
42	NH	p-aminomethylphenyl	phenyl
43	NHCH ₂	4-aminophenyl	phenyl

Table 2				
Compound No.	L Ar'		\mathbb{R}^3	
44	NH	4-pyridyl	3-chlorophenyl	
45	NH	Phenyl	4-pyridyl	
46	NH	NNH	phenyl	
48	NH	2-benzylamino-3-pyridyl	phenyl	
49	NH	2-benzylamino-4-pyridyl	phenyl	
50	NH	3-benzyloxyphenyl	phenyl	
51	NH	4-pyridyl	3-aminophenyl	
52	NH	4-pyridyl	4-pyridyl	
53	NH	4-pyridyl	2-naphthyl	
54	N	4-pyridyl	phenyl	
55	N—CH ₂ —	Phenyl	phenyl	
56		2-pyridyl	phenyl	
61	NH	4-pyridyl	2-trifluoromethyl phenyl	
62	NH	4-aminophenyl	phenyl	
64	NH	3-methoxyphenyl	2-fluorophenyl	
65	NH	4-methoxyphenyl	2-fluorophenyl	
66	NH	4-pyrimidinyl	2-fluorophenyl	
67	NH	3-amino-4-pyridyl	phenyl	
68	NH	4-pyridyl 2-benzylaminopl		
69	NH	2-benzylaminophenyl phenyl		
70	NH	2-benzylaminophenyl 4-cyanophenyl		
71	NH	3'-cyano-2- benzylaminophenyl	phenyl	

(b) the compounds listed in Table 3, below, wherein L is NH; Z^3 is N; Z^6 and Z^7 are CH and Z^5 , Z^8 , Ar' and R^3 are as shown in Table 3:

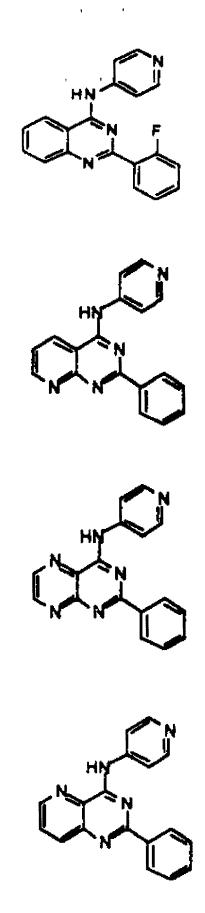
Table 3				
Compound No.	\mathbf{Z}^{5}	\mathbb{Z}^8	Ar'	\mathbb{R}^3
72	CH	N	4-pyridyl	2-fluorophenyl
73	CH	N	4-pyridyl	2-chlorophenyl
74	CH	N	4-pyridyl	phenyl
75	N	N	4-pyridyl	phenyl
76	N	CH	4-pyridyl	phenyl

and

(c) the quinazoline derivatives listed in Table 4 below, wherein L is NH; Ar' is 4-pyridyl; Z^3 , Z^5 , and Z^8 are N; Z^6 or Z^7 are CR^2 as shown and each is otherwise N and wherein R^3 and R^2 are as shown in Table 4:

Table 4			
Compound No.	\mathbb{R}^3	\mathbb{R}^2	
77	2-chlorophenyl	6,7-dimethoxy	
78	2-fluorophenyl	6-nitro	
79	2-fluorophenyl	6-amino	
80	2-fluorophenyl	7-amino	
81	2-fluorophenyl	6-(3-methoxybenzylamino)	
82	2-fluorophenyl	6-(4-methoxybenzylamino)	
83	2-fluorophenyl	6-(2-isobutylamino)	
84	2-fluorophenyl	6-(4-methylmercaptobenzylamino)	
85	2-fluorophenyl	6-(4-methoxybenzoyl amino)	
86	4-fluorophenyl	7-amino	
87	4-fluorophenyl	7-(3-methoxybenzylamino)	

31. (New) The composition of claim 18 wherein the compound of formula (1) is selected from the group consisting of the following compounds:



32. (New) The composition of claim 18 wherein L is -R¹N(CH₂)_n-;

L is $-R^1N(CH_2)_n$ - wherein R^1 is H or is alkyl (1-6C) or arylalkyl optionally substituted on the aryl group with 1-3 substituents independently selected from alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, -SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C) and n is 0, 1 or 2; and

(a) Ar' is phenyl, substituted with at least one group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C), or pyridyl, indolyl, or pyrimidyl, each optionally substituted with at least one group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); and

 R^3 is phenyl optionally substituted with 1-3 substituents which substituents are selected from the group consisting of alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, -SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); or

(b) Ar' is phenyl, pyridyl, indolyl, or pyrimidyl, each optionally substituted with a group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); and

R³ is phenyl substituted with 1-3 substituents which substituents are selected from the group consisting of alkyl (1-6C), halo, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, -SO₂NR₂, CN, and CF₃, wherein each R is independently H or lower alkyl (1-4C); or

(c) Ar' is phenyl substituted with a group selected from the group consisting of optionally substituted NR₂, SR, -NROCR, RCO, -CONR₂, SO₂NR₂, CN, and CF₃, wherein each R is independently H or lower alkyl (1-4C); or pyridyl substituted with a group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); or indolyl or pyrimidyl, each optionally substituted with a group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR,

-NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); and

R³ is phenyl optionally substituted with 1-3 substituents which substituents are selected from the group consisting of alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, -SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); or

(d) Ar' is phenyl, pyridyl, indolyl, or pyrimidyl, each optionally substituted with a group selected from the group consisting of optionally substituted alkyl (1-6C), halo, OR, NR₂, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C); and

R³ is phenyl substituted with 1-3 substituents which substituents are selected from the group consisting of alkyl (1-6C), halo, OR, SR, -OOCR, -NROCR, RCO, -COOR, -CONR₂, -SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or lower alkyl (1-4C).

- 33. (New) The composition of claim 18 wherein the compound of formula 1 is selected from the group consisting of
 - 2-phenyl-4-(4-pyridylamino)-quinazoline;
 - 2-(2-bromophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2-chlorophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2-methylphenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(4-fluorophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(3-methoxyanilyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2,6-dichlorophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2,6-dibromophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2,6-difluorophenyl)-4-(4-pyridylamino)-quinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-6, 7-dimethoxyquinazoline;
 - 2-(4-fluorophenyl)-4-(4-pyridylamino)-6, 7-dimethoxyquinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-6-nitroquinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino -6-aminoquinazoline;
 - 2-(2-fluorophenyl)-4-(4-pyridylamino)-7-aminoquinazoline;

- 2-(2-fluorophenyl)-4-(4-pyridylamino)-6-(3-methoxybenzylamino)-quinazoline;
- $\hbox{2-(2-fluorophenyl)-4-(4-pyridylamino)-6-(4-methoxybenzylamino)-quinazoline;}\\$
- 2-(2-fluorophenyl)-4-(4-pyridylamino)-6-(2-isobutylamino)-quinazoline; and
- 2-(2-fluorophenyl)-4-(4-pyridylamino)-6-(4-methylmercaptobenzylamino)-quinazoline.

REMARKS

The claims have been amended to place them in a condition for immediate allowance. As amended, the claims are limited to methods and pharmaceutical compositions for inhibiting p38a kinase activity. These claims are clearly supported by the grandparent application Serial No. 09/141,916 filed 28 August 1998. Accordingly, the publications of Alvi, WO 99/18942 and Schindler, WO 99/32460 cited in the parent application are not citable with respect to these claims as their publication dates are subsequent to the priority to which these claims are entitled. Accordingly, it is believed that the proposed claims are allowable.

Claims 1, 8-10, 13, 15-17 and 23-24 are claims to methods to inhibit p38 α kinase and are similar to those allowed in the parent application with corresponding numbers except that the parent claims are directed to inhibiting p38 α kinase and TGF β in the alternative. As the present claims are entitled to priority from the grandparent application, certain limitations which were inserted into claim 1 in the parent application to expedite allowance are clearly unnecessary in the present case. Because, however, these claims are simply of different scope, a terminal disclaimer is enclosed.

Also, unlike the parent, composition claims 18-20 have been retained. New claims 25-33 are dependent claims directed to the compositions and are analogous to the claims dependent on the method of claim 1.

Accordingly, no new matter has been added; the general format of the composition and method claims is similar.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Assistant Commissioner to

charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. <u>219002028402</u>. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

Dated:

October 4, 2001

Bv

Kate H. Murashige Registration No. 29,959

Morrison & Foerster LLP 3811 Valley Centre Drive, Suite 500

San Diego, California 92130-2332

Telephone: (858) 720-5112 Facsimile: (858) 720-5125

EXHIBIT A. - VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

On page 10, the second paragraph, at lines 5-21:

Each R² is also independently a hydrocarbyl residue (1-20C) containing 0-5 heteroatoms selected from O, S and N. Preferably, R² is independently H, alkyl, alkenyl, alkynyl, acyl or hetero-forms thereof or is aryl, arylalkyl, heteroalkyl, heteroaryl, or heteroarylalkyl, each unsubstituted or substituted with 1-3 substituents selected independently from the group consisting of alkyl, alkenyl, alkynyl, aryl, alkylaryl, aroyl, N-aryl, NH-alkylaryl, NH-aroyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, NRSOR, NRSO₂R, $-OCONR_2, RCO, -COOR, -SO_3R, NRSOR, NRSO_2R, -CONR_2, SO_2NR_2, CN, CF_3, and NO_2, \\$ wherein each R is independently H or alkyl (1-4C). The aryl or aroyl groups on said substituents may be further substituted by, for example, alkyl, alkenyl, alkynyl, halo, OR, NR2, SR, -SOR, $-SO_2R, -OCOR, -NRCOR, -NRCONR_2, -NRCOOR, -OCONR_2, RCO, -COOR, -SO_3R, -CONR_2, \\$ SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C). More preferably the substituents on R² are selected from R⁴, halo, OR⁴, NR⁴₂, SR⁴, -OOCR⁴, [-NROCR⁴] -NR⁴OCR⁴, -COOR⁴, R⁴CO, -CONR⁴2, -SO₂NR⁴2, CN, CF₃, and NO₂, wherein each R⁴ is independently H, or optionally substituted alkyl (1-6C), or optionally substituted arylalkyl (7-12C) and wherein two R4 or two substituents on said alkyl or arylalkyl taken together may form a fused aliphatic ring of 5-7 members.

In the Claims:

1. (Amended) A method to [treat conditions characterized by enhanced] inhibit p38- α activity[and/or enhanced TGF- β activity], which method comprises [administering to a subject in need of such treatment] contacting said p38- α with a compound of the formula:

$$Z_{1}^{6} \xrightarrow{Z^{5}} A \xrightarrow{B} Z^{3}$$

$$Z^{7} \xrightarrow{Z^{8}} R^{3}$$

$$(1)$$

or the pharmaceutically acceptable salts thereof

wherein R³ [is a noninterfering substituent] comprises a substituted or unsubstituted aromatic moiety, wherein said aromatic moiety is a monocyclic or fused bicyclic moiety containing 5-12 ring member atoms, optionally comprising one or more heteroatoms selected from O, S and N;

each Z is CR² or N, wherein no more than two Z positions in ring A are N, and wherein two adjacent Z positions in ring A cannot be N;

each R² is [independently a noninterfering substituent;

L is a linker; either

(i) independently selected from the group consisting of H, alkyl, alkenyl, alkynyl, acyl, wherein each of alkyl, alkenyl, alkynyl and acyl may optionally contain 1-2 O, S or N, aryl, and arylalkyl, each of said aryl and arylalkyl optionally containing 1 or more O, S or N and wherein in each of the foregoing other than H may be unsubstituted or substituted with 1-3 substituents selected independently from the group consisting of alkyl, alkenyl, alkynyl, aryl, alkylaryl, aroyl, N-aryl, NH-alkylaryl, NH-aroyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCOR, -NRCOR, -NRSOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C), and wherein any aryl or aroyl groups on said substituents may be further substituted by alkyl, alkenyl, alkynyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRCONR₂, -NRCOOR, -NRCONR₂, -NRCOOR, -NRCONR₂, -NRCOOR, -NRCONR₂, -NRCOOR, -NRCONR₂, -NRCOOR, -NRCOOR, -NRCONR₂, -NRCOOR, -

-NRSOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C), or

(ii) independently selected from the group consisting of halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, NRSOR, NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, NRSOR, NRSO₂R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C);

n is 0 or 1; and

Ar' is [the residue of] a cyclic aliphatic, cyclic heteroaliphatic[,] or a monocyclic or polycyclic aromatic [or heteroaromatic] moiety any of the foregoing optionally substituted with 1-3 [noninterfering] substituents, wherein two of said substituents may form a 5-7 member cyclic optionally heterocyclic aliphatic ring and wherein Ar' and any said substituents thereon forming a cyclic aliphatic ring, may optionally contain one or more ring atoms selected from O, S and N.

- 8. (Amended) The method of claim [7] 1 wherein [said] any substituents on the aromatic or heteroaromatic moiety of R³ are independently selected from the group consisting of halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C) and [with respect to any aryl or heteroaryl moiety, said group further including] alkyl (1-6C).
- 10. (Amended) The method of claim 9 wherein Ar' is phenyl, 2-, 3-, or 4-pyridyl, 2- or 4-pyrimidyl, indolyl, isoquinolyl, quinolyl, benzimidazolyl, benzotriazolyl, benzothiazolyl, benzofuranyl, pyridyl, thienyl, furyl, pyrrolyl, thiazolyl, oxazolyl, or imidazolyl, [or morpholinyl,] all of which may optionally be substituted.
- 13. (Amended) The method of claim [11] 1 wherein said optional substituents on R² are independently selected from the group consisting of R⁴, halo, OR⁴, NR⁴₂, SR⁴, -OOCR⁴, -NROCR⁴, -COOR⁴, R⁴CO, -CONR⁴₂, -SO₂NR⁴₂, CN, CF₃, and NO₂, wherein each R⁴ is independently H, or optionally substituted alkyl (1-6C), or optionally substituted arylalkyl (7-12C) and wherein two R⁴ or two substituents on said alkyl or arylalkyl taken together may form a fused aliphatic ring of 5-7 members.

15. (Amended) The method of claim [14] $\underline{1}$ wherein L is $S(CR^2_2)_m$, $-NR^1SO_2(CR^2_2)_l$, $SO_2(CR^2_2)_m$, $SO_2NR^1(CR^2_2)_l$, $[NR^3(CR^2_2)_m]$ $\underline{NR^1(CR^2_2)_m}$, $NR^1CO(CR^2_2)_l$, $O(CR^2_2)_m$, or $OCO(CR^2_2)_l$, \underline{or}

$$-N$$
 $(CR_2^2)_{||}$ Z $- (CR_2^2)_{||}$

wherein Z is N or CH and wherein m is 0-4 and 1 is 0-3;

R¹ is H, alkyl or arylalkyl where the aryl moiety may be substituted by 1-3 substituents selected independently from the group consisting of alkyl, alkenyl, alkynyl, aryl, alkylaryl, aroyl, N-aryl, NH-alkylaryl, NH-aroyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCOR, -NRCOR₂, -NRCOOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C);

and wherein any aryl or aroyl groups on said substituents may be further substituted by alkyl, alkenyl, alkynyl, halo, OR, NR₂, SR, -SOR, -SO₂R, -OCOR, -NRCOR, -NRCONR₂, -NRCOOR, -NRSO₂R, -OCONR₂, RCO, -COOR, -SO₃R, -CONR₂, SO₂NR₂, CN, CF₃, and NO₂, wherein each R is independently H or alkyl (1-4C); and

 R^2 is as defined in claim [12] <u>1</u>.

- 16. (Amended) The method of claim 1 wherein the compound of formula (1) is selected from the group consisting of [compounds 1-87 herein]
- (a) the compounds listed in Table 2 below, wherein Z^5 - Z^8 are CH; Z^3 is N; R^1 in compound No. 11 is 2-propyl; R^1 in compound No. 12 is 4-methoxyphenyl, and R^1 in compound No. 41 is 4-methoxybenzyl; and wherein L, Ar' and R^3 are as shown in Table 2:

Table 2			
Compound No.	L	Ar'	R ³
1	NH	4-pyridyl	2-chlorophenyl
2	NH	4-pyridyl	2,6-dichlorophenyl
3	NH	4-pyridyl	2-methylphenyl
4	NH	4-pyridyl	2-bromophenyl
5	NH	4-pyridyl	2-fluorophenyl
6	NH	4-pyridyl	2,6-difluorophenyl
7	NH	4-pyridyl	phenyl
8	NH	4-pyridyl	4-fluorophenyl
9	NH	4-pyridyl	4-methoxyphenyl
10	NH	4-pyridyl	3-fluorophenyl
11	NR ¹	4-pyridyl	phenyl
12	NR ¹	4-pyridyl	phenyl
13	NHCH ₂	4-pyridyl	phenyl
14	NHCH ₂	4-pyridyl	4-chlorophenyl
15	NH	3-pyridyl	phenyl
16	NHCH ₂	2-pyridyl	phenyl
17	NHCH ₂	3-pyridyl	phenyl
18	NHCH ₂	2-pyridyl	phenyl
19	NHCH ₂ CH ₂	2-pyridyl	phenyl
20	NH	6-pyrimidinyl	phenyl
21	NH	2-pyrimidinyl	phenyl
22	NH	Phenyl	phenyl
23	NHCH ₂	Phenyl	3-chlorophenyl
24	NH	3-hydroxyphenyl	phenyl
25	NH	2-hydroxyphenyl	phenyl
26	NH	4-hydroxyphenyl	phenyl
27	NH	4-indolyl	phenyl
28	NH	5-indolyl	phenyl
29	NH	4-methoxyphenyl	phenyl
30	NH	3-methoxyphenyl	phenyl
31	NH	2-methoxyphenyl	phenyl
32	NH	4-(2-hydroxyethyl)phenyl	phenyl
33	NH	3-cyanophenyl	phenyl
34	NHCH ₂	2,5-difluorophenyl	phenyl
35	NH	4-(2-butyl)phenyl	phenyl
36	NHCH ₂	4-dimethylaminophenyl	phenyl

Table 2			
Compound No.	L	Ar'	R ³
38	NH	2-pyridyl	phenyl
39	NHCH ₂	3-pyridyl	phenyl
40	NH	4-pyrimidyl	phenyl
41	NR ¹	4-pyridyl	phenyl
42	NH	p-aminomethylphenyl	phenyl
43	NHCH ₂	4-aminophenyl	phenyl
44	NH	4-pyridyl	3-chlorophenyl
45	NH	Phenyl	4-pyridyl
46	NH	NNH	phenyl
48	NH	2-benzylamino-3-pyridyl	phenyl
49	NH	2-benzylamino-4-pyridyl	phenyl
50	NH	3-benzyloxyphenyl	phenyl
51	NH	4-pyridyl	3-aminophenyl
52	NH	4-pyridyl	4-pyridyl
53	NH	4-pyridyl	2-naphthyl
54	NCH ₂	4-pyridyl	phenyl
55	N-CH ₂ -	Phenyl	phenyl
56		2-pyridyl	phenyl
61	NH	4-pyridyl	2-trifluoromethyl phenyl
62	NH	4-aminophenyl	phenyl
64	NH	3-methoxyphenyl	2-fluorophenyl
65	NH	4-methoxyphenyl	2-fluorophenyl
66	NH	4-pyrimidinyl	2-fluorophenyl
67	NH	3-amino-4-pyridyl	phenyl
68	NH	4-pyridyl	2-benzylaminophenyl
69	NH	2-benzylaminophenyl phenyl	
70	NH	2-benzylaminophenyl	4-cyanophenyl
71	NH	3'-cyano-2- benzylaminophenyl	phenyl

(b) the compounds listed in Table 3, below, wherein L is NH; Z^3 is N; Z^6 and Z^7 are CH and Z^5 , Z^8 , Ar' and Z^3 are as shown in Table 3:

Table 3					
Compound No.	\mathbf{Z}^5	$\mathbf{Z^8}$	Ar'	\mathbb{R}^3	
72	СН	N	4-pyridyl	2-fluorophenyl	
73	СН	N	4-pyridyl	2-chlorophenyl	
74	CH	N	4-pyridyl	phenyl	
75	N	N	4-pyridyl	phenyl	
76	N	CH	4-pyridyl	phenyl	

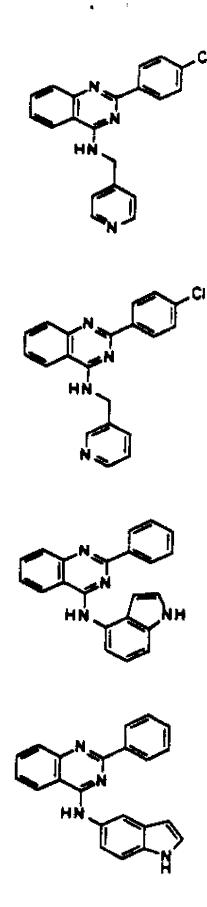
<u>and</u>

(c) the quinazoline derivatives listed in Table 4 below, wherein L is NH; Ar' is 4-pyridyl; Z^3 , Z^5 , and Z^8 are N; Z^6 or Z^7 are CR^2 as shown and each is otherwise N and wherein R^3 and R^2 are as shown in Table 4:

Table 4				
Compound No.	\mathbb{R}^3	R ²		
77	2-chlorophenyl	6,7-dimethoxy		
78	2-fluorophenyl	6-nitro		
79	2-fluorophenyl	6-amino		
80	2-fluorophenyl	7-amino		
81	2-fluorophenyl	6-(3-methoxybenzylamino)		
82	2-fluorophenyl	6-(4-methoxybenzylamino)		
83	2-fluorophenyl	6-(2-isobutylamino)		
84	2-fluorophenyl	6-(4-methylmercaptobenzylamino)		
85	2-fluorophenyl	6-(4-methoxybenzoyl amino)		
86	4-fluorophenyl	7-amino		
87	4-fluorophenyl	7-(3-methoxybenzylamino)		

17. (Amended) The method of claim 1 wherein the compound of formula (1) is selected from the group consisting of <u>the following compounds:</u> [shown in Figures 1A-1C herein.]

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18. (Amended) A pharmaceutical composition for treating conditions characterized by enhanced [p38- α activity and/or enhanced TGF- β] p38 α kinase activity which composition comprises

[a therapeutically effective] an amount of a compound of the formula

$$Z_{A}^{6}$$

$$Z_{A}^{7}$$

$$Z_{A}^{8}$$

$$Z_{A}^{7}$$

$$Z_{A}^{8}$$

$$Z_{A}^{7}$$

$$Z_{A}^{8}$$

$$Z_{A}^{7}$$

$$Z_{A$$

or the pharmaceutically acceptable salts thereof

wherein R³ [is a noninterfering substituent];

each Z [is CR² or N, wherein no more than two Z positions in ring A are N, and wherein two adjacent Z positions in ring A cannot be N];

each R² [is independently a noninterfering substituent];

L [is a linker];

n [is 0 or 1]; and

Ar' [is the residue of a cyclic aliphatic, cyclic heteroaliphatic, aromatic or heteroaromatic moiety optionally substituted with 1-3 noninterfering substituents] are as defined in claim 1 which is effective to inhibit p38 α kinase activity in admixture with at least one pharmaceutically acceptable excipient appropriate for administering to a subject exhibiting enhanced p38 α kinase activity.